

**WEST**

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L1: Entry 53 of 324

File: DWPI

Jan 11, 2000

DERWENT-ACC-NO: 1997-480182

DERWENT-WEEK: 200020

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TITLE: High brightness kaolin clay for filling and coating  
paper - produced by magnetically separating blunged, degritt  
clay and recovering fraction below two microns in particle size

INVENTOR: BILIMORIA, B M; MANASSO, J A ; WILLIS, M S

PATENT-ASSIGNEE:

ASSIGNEE

CODE

DRY BRANCH KAOLIN CO

DRYBN

PRIORITY-DATA: 1996US-0013939 (March 22, 1996)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
BR 9710649 A	January 11, 2000	N/A	000	C09C001/00
WO 9734956 A1	September 25, 1997	E	051	C09C001/00
AU 9725412 A	October 10, 1997	N/A	000	C09C001/00

DESIGNATED-STATES: AL AM AT AU AZ BA BB BG BR BY CA CH CN CU CZ  
DE DK EE ES FI GB GE HU IL IS JP KE KG KP KR KZ LC LK LR LS LT  
LU LV MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK TJ TM  
TR TT UA UG US UZ VN AT BE CH DE DK EA ES FI FR GB GH GR IE IT  
KE LS LU MC MW NL OA PT SD SE SZ UG

CITED-DOCUMENTS:US 5169443; US 5411587 ; US 5454865 ; US  
5522924

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
BR 9710649A	March 21, 1997	1997BR-0010649	N/A
BR 9710649A	March 21, 1997	1997WO-US04680	N/A
BR 9710649A		WO 9734956	Based on
WO 9734956A1	March 21, 1997	1997WO-US04680	N/A
AU 9725412A	March 21, 1997	1997AU-0025412	N/A
AU 9725412A		WO 9734956	Based on

INT-CL (IPC): C04B 33/04; C09C 1/00; C09C 1/28; C09C 1/42; C09C  
3/00; C09C 3/04; C09C 3/06

ABSTRACTED-PUB-NO: WO 9734956A

BASIC-ABSTRACT:

Production of high brightness kaolin clay comprises (a) applying magnetic separation to a blunged, degrittied kaolin clay crude of particle size distribution 50-70% < 2  $\mu$  m, 20-35% < 0.5  $\mu$  m and 5-20% < 0.3  $\mu$  m (equivalent spherical diameter determined by Sedigraph) for sufficient time to achieve the desired brightness and (b) fractionating the clay and retaining the high brightness fraction that is 90% < 2  $\mu$  in particle size. Also claimed are (1) delaminated and nondelaminated kaolin clays of brightness at least 87 and (2) a filler system for paper products (and its production) containing precipitated calcium carbonate and the high brightness kaolin clay.

USE - The clay is used as a paper coating and paper filler.

ADVANTAGE - The clay has high brightness (e.g. > 90), good opacity and tensile strength and very good high and low shear viscosity.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: HIGH BRIGHT KAOLIN CLAY FILL COATING PAPER PRODUCE  
MAGNETIC SEPARATE CLAY RECOVER FRACTION BELOW TWO MICRON  
PARTICLE SIZE

DERWENT-CLASS: F09 G01

CPI-CODES: F05-A06B; F05-A06D; G01-A10;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1278U; 1949P ; 1949U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1997-152560

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Sep 11, 2000

DERWENT-ACC-NO: 1999-217091  
DERWENT-WEEK: 200046  
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TITLE: Paper web production for making coated fine papers

INVENTOR: LESKELAE, M; NYGARD, S ; PITKAENEN, M

PATENT-ASSIGNEE:

ASSIGNEE

CODE

METSAB-SERLA OYJ

METSN

METSAB-SERLA OY

METSN

PRIORITY-DATA: 1997FI-0003704 (September 16, 1997)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 3085935 B2	September 11, 2000	N/A	007	D21H011/10
EP 908557 A1	April 14, 1999	E	011	D21H011/10
FI 9703704 A	March 17, 1999	N/A	000	D21B000/00
FI 103417 B1	June 30, 1999	N/A	000	D21B001/00
CA 2247307 A1	March 16, 1999	E	000	D21H011/10
JP 11189983 A	July 13, 1999	N/A	023	N/A

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI  
LT LU LV MC MK NL PT RO SE SI

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 3085935B2	September 16, 1998	1998JP-0262004	N/A
JP 3085935B2		JP 11189983	Previous Publ.
EP 908557A1	September 16, 1998	1998EP-0660093	N/A
FI 9703704A	September 16, 1997	1997FI-0003704	N/A
FI 103417B1	September 16, 1997	1997FI-0003704	N/A
FI 103417B1		FI 9703704	Previous Publ.
CA 2247307A1	September 16, 1998	1998CA-2247307	N/A
JP 11189983A	September 16, 1998	1998JP-0262004	N/A

INT-CL (IPC): D21B 0/00; D21B 1/00; D21H 11/10; D21H 19/72;  
D21H 19/82

ABSTRACTED-PUB-NO: EP 908557A

## BASIC-ABSTRACT:

NOVELTY - A paper web is formed from a fibrous raw material stock on a conventional papermaking machine. The stock contains 20-70 % by dry weight of mechanical pulp from Poplar trees. The remainder of the stock is 70-30 % by weight of bleached chemical softwood pulp.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for (1) a base paper of which 30-60 wt% of its fibers are derived from a mechanical aspen pulp, 70-40 wt% from chemical softwood pulp, its grammage is 30-200 g/m<sup>2</sup>, 1.2-1.6 cm<sup>3</sup>/g and opacity and brightness over 78%; and (2) fine paper produced from double-coated base paper, in which at least one of the coating layers is formed from a coating color containing pigment with a steep particle size distribution.

USE - To provide a base paper web suitable for use in making coated fine papers.

ADVANTAGE - Addition of mechanical pulp as pressure groundwood pulp from Poplar trees with short fibers increases the bulk and light scattering of the paper.

CHOSEN-DRAWING: Dwg.0/0

TITLE-TERMS: PAPER WEB PRODUCE COATING FINE PAPER

DERWENT-CLASS: F09

CPI-CODES: F05-A06;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1278U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1999-064122

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L1: Entry 60 of 324

File: DWPI

Jul 8, 1997

DERWENT-ACC-NO: 1997-400152

DERWENT-WEEK: 199948

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TITLE: Preparation of paper with inner addition of filler - contains pulp, calcium carbonate and hydrated silicate and has superior brightness, opacity and reduced lowering of paper strength

PATENT-ASSIGNEE:

ASSIGNEE

CODE

NIPPON SEISHI KK

SAOK

PRIORITY-DATA: 1995JP-0340842 (December 27, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
JP 09176985 A	July 8, 1997	N/A	008	D21H017/67
JP 2960002 B2	October 6, 1999	N/A	008	D21H017/68

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
JP 09176985A	December 27, 1995	1995JP-0340842	N/A
JP 2960002B2	December 27, 1995	1995JP-0340842	N/A
JP 2960002B2		JP 9176985	Previous Publ.

INT-CL (IPC): D21H 17/67; D21H 17/68; D21H 21/26

ABSTRACTED-PUB-NO: JP 09176985A

BASIC-ABSTRACT:

Preparation of paper comprises making paper from a raw material of pulp, precipitated calcium carbonate, heavy calcium carbonate or mixture thereof and slurry of hydrated silicate. Hydrated silicate satisfies the following conditions: (A) the amount of absorbing oil is 250-350 ml/100g; (B) the total volume of fine pores is 4.0-6.0 cm<sup>3</sup>/g and average diameter of the fine pores is 200-400 Angstrom ; (C) the average particle diameter is 3.0-15  $\mu$ m measured by a laser method, 2.0-4.0  $\mu$ m measured by a coal tar method, and 0.5-3.5  $\mu$ m measured by a centrifugal sedimentation method.

Preferably, the hydrated silicate is a mixture with a cationic

polymer electrolyte. The amount of precipitated calcium carbonate, heavy calcium carbonate or mixture thereof is 0.05-35 wt.% based on the pulp material and the amount of hydrated silicate is 0.05-25 wt.% based on the pulp material.

ADVANTAGE - The paper has a superior brightness, opacity, particularly opacity after printing, and less lowering of paper strength.

TITLE-TERMS: PREPARATION PAPER INNER ADD FILL CONTAIN PULP  
CALCIUM CARBONATE HYDRATED SILICATE SUPERIOR BRIGHT OPAQUE  
REDUCE LOWER PAPER STRENGTH

DERWENT-CLASS: F09

CPI-CODES: F05-A06C; F05-A06D;

UNLINKED-DERWENT-REGISTRY-NUMBERS: 1278U

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1997-129160